DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake Area (ha):	6.27
Maximum depth (m):	3.7
Mean depth (m):	2.3
Volume (m³):	142000
Relative depth:	1.3
Shore configuration:	1.63
Areal water load (m/yr)	: 5.32
Flushing rate (yr ⁻¹):	2.30
P retention coeff.:	0.65
0.0 Lake type:	natural
3	Maximum depth (m): Mean depth (m): Volume (m³): Relative depth: Shore configuration: Areal water load (m/yr) Flushing rate (yr-1): 7 P retention coeff.:

BIOLOGICAL:	24 January 1996	8 August 1995
DOM. PHYTOPLANKTON (% TOTAL) #1	MELOSIRA 80%	ANKISTRODESMUS 65%
#2	ASTERIONELLA 15%	MELOSIRA 10%
#3		TINY PENNATE DIATOM 10%
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		19.78
DOM. ZOOPLANKTON (% TOTAL) #1	NAUPLIUS LARVA 52%	KERATELLA 51%
#2	KERATELLA 22%	NAUPLIUS LARVA 26%
#3	CALANOID COPEPOD 17%	
ROTIFERS/LITER	23	319
MICROCRUSTACEA/LITER	78	154
ZOOPLANKTON ABUNDANCE (#/L)	105	473
VASCULAR PLANT ABUNDANCE		Common
SECCHI DISK TRANSPARENCY (m)		1.3
BOTTOM DISSOLVED OXYGEN (mg/L)	5.0	0.1
BACTERIA (E. coli, #/100 ml) #1		31
#2		15
#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 2.6 Hypolimnion volume (m^3) : None Anoxic volume (m^3) : 21000

CHEMICAL:			HALFMOON KINGSTON	POND	
	24 Janua	ary 1996	8 August 1995		
DEPTH (m)	1.0	2.5	1.0		3.0
pH (units)	5.0	5.8	6.7		6.3
A.N.C. (Alkalinity)	1.2	4.7	7.1		12.3
NITRATE NITROGEN	0.08	0.06	< 0.10		< 0.10
TOTAL KJELDAHL NITROGEN	0.68	0.73	0.48		0.81
TOTAL PHOSPHORUS	0.010	0.014	0.019		0.037
CONDUCTIVITY (µmhos/cm)	99.5	108.9	103.3		107.8
APPARENT COLOR (cpu)	110	100	110		140
MAGNESIUM			0.89		
CALCIUM			3.4		
SODIUM			12.9		
POTASSIUM		Marie	0.94		
CHLORIDE	20	24	24		23
SULFATE			4		4
TN : TP	76	56	25		22
CALCITE SATURATION INDEX			3.2		

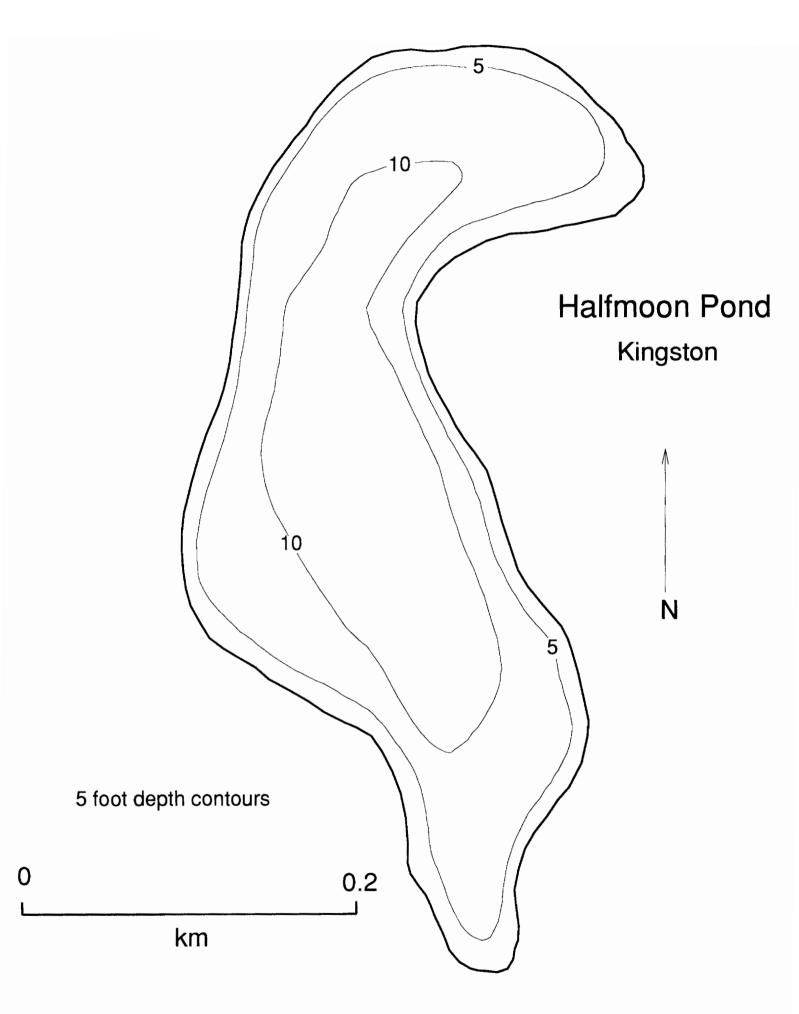
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1995

Ι	.0.	S.D.	PLANT	CHL	TOTAL	CLASS
	**	4	3	4	11	Eutro.

COMMENTS:

- 1. This pond was previously surveyed and classified in 1989. The pond lies in the watershed of Great (Kingston) Pond and was re-surveyed as part of the Great Pond diagnostic study. There was no change in the assigned trophic class between the two survey years.
- 2. This is a shallow, darkly tea-colored eutrophic pond. It has elevated algae growth, poor water clarity and no dissolved oxygen below 2.5 meters. Sodium and chloride levels suggest salt runoff from roads.
- 3. No public access; need permission from land-owners to launch a boat.



FIELD DATA SHEET

LAKE: HALFMOON POND

DATE: 08/08/95

TOWN: KINGSTON

WEATHER: SUNNY & CLEAR

DATE: 00,00,33	WENTI	ER: SONNI & CEEAR	
DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	23.3	7.8	90 %
0.5	22.5	7.9	89 %
1.0	22.3	7.8	88 %
1.5	21.7	7.6	84 %
2.0	21.5	6.3	70 %
2.5	19.0	0.2	2 %
3.0	15.3	0.1	1 %
3.5	13.0	0.1	1 %

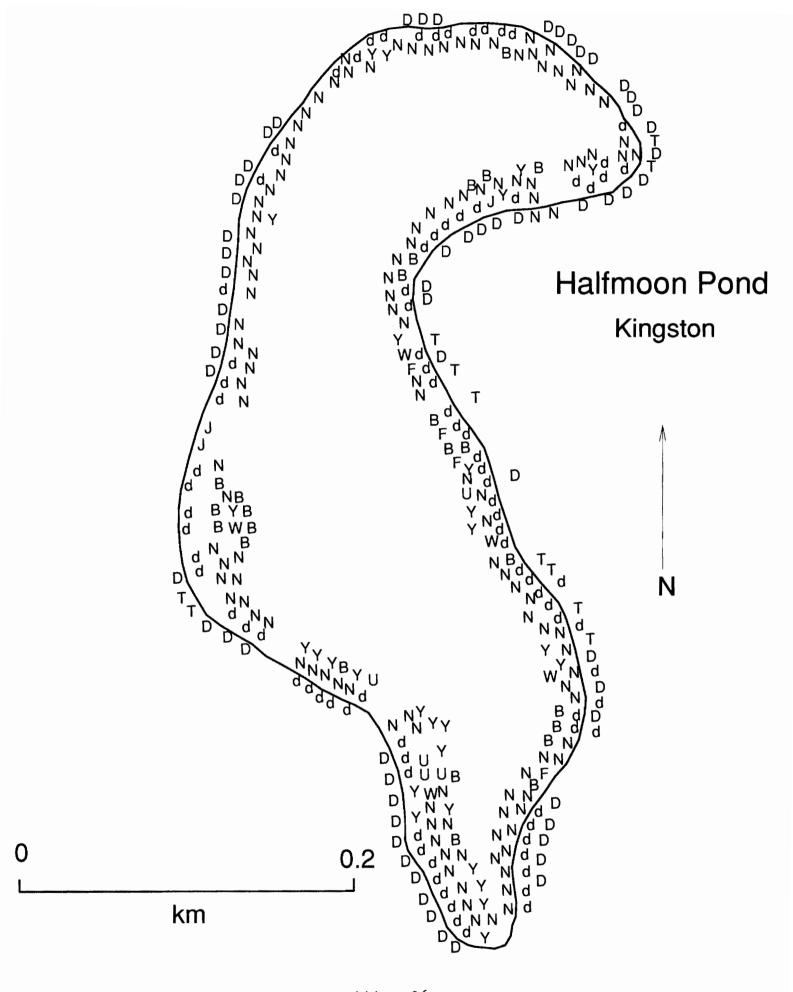
SECCHI DISK (m): 1.3

COMMENTS:

BOTTOM DEPTH (m): 3.7

TIME: 1130

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

LAK	E: HALFMOON POND	TOWN: KINGSTON	DATE: 08/08/95	
Кеу	PLANT	NAME	100000000	
rey	GENERIC	COMMON	ABUNDANCE	
D	Decodon verticillatus	Swamp loosestrife	Common	
Y	Nuphar	Yellow water lily	Scat/Common	
N	Nymphaea	White water lily	Common	
d	Dulichium arundinaceum	Three-way sedge	Scat/Common	
В	Brasenia schreberi	Water shield	Scattered	
W	Potamogeton robbinsii	Robbins pondweed	Sparse	
F	Nymphoides cordatum	Floating heart	Scattered	
J	Juncus	Rush	Sparse	
U	Utricularia	Bladderwort	Sparse	
T	Typha	Cattail	Scattered	
			,	
10000				

OVERALL ABUNDANCE: Common

GENERAL OBSERVATIONS:

- 1. Much of the shoreline supported swamp loosestrife growth, interspersed with cattails in some areas.
- 2. Algae clumps were present on the pond surface and were composed of filamentous blue-greens and other algae.